

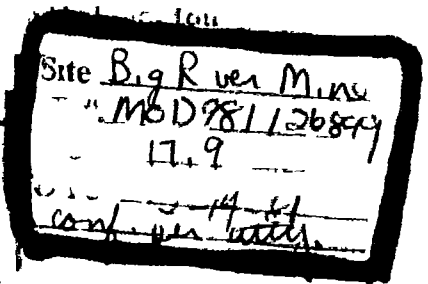
December 14, 1981

St. Joe Mineral's Agreement with MDNR on Liability and  
for Lead Mine Tailings Site at Desloge, Missouri

Karen Flournoy, HAZI/1.5

Robert L. Morby, Chief HAZM

THUD Katie Jigs HAZM/1.5-UKM  
Darnia DeGner, HAZM/1.5-PHIL



This memo summarizes developments with the abandoned tailings site at Desloge, Missouri and reviews the agreement between St. Joe Minerals Corporation, Missouri Department of Natural Resources and other agencies to clean-up/stabilize the site. The initial review was by Paul Doherty with additional review by myself.

### I Background

Lead mine tailings were deposited at the Desloge, Missouri site by St. Joe Minerals Corporation for 29 years, between 1929 and 1958. The site covers approximately 500 acres. The tailings are reportedly 2 - 4 percent lead and are piled to depths of up to 100 feet inside a horseshoe bend of the Big River.

In 1972, the property was donated by St. Joe Minerals to St. Francois County. The County in turn donated the land to the St. Francois County Environmental Corporation, a non-profit organization for the purpose of establishing a sanitary landfill on the site. Up to this time it is reported that the tailings site had been adequately maintained with no apparent incident of tailing pile washout or erosion into the Big River.

In 1977, a major washout occurred reportedly as a result of a storm. The structure and neglected maintenance. It is estimated that up to 50,000 yards of lead tailings washed into the Big River. Minor erosion has continued up to the present time adding to the tailings deposited in the river.

Following the washout incident, several studies were undertaken to determine the extent of environmental damage and explore remedial actions.

In late 1977, EPA/ANV conducted an intensive survey of the Big River. General finding was that the Big River was degraded by mine tailings, not only as a result of physical changes but also by toxicity. It is reported that mine tailing deposits are the primary constituent of the stream bed for several miles downstream of the tailings pile.

By whom?  
will there  
any history or  
investigation  
be done  
washout?

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SUPERFUND RECORDS

In June 1979, a study was initiated by the University of California to evaluate the present and potential problems of the site and to provide recommendations to these problems. Their report was issued in January 1980.

A July 19, 1980, study by the Massachusetts Department of Conservation reported elevated levels of lead in the flesh of liver and kidney of fish in the tailings pile. As a result of these findings the Massachusetts Department of Health issued a warning to the public against eating fish to dine fish in this area.

Since the occurrence of the washout incident a number of meetings have been held among interested agencies to coordinate mitigation efforts. Up until last year, enforcement action against Joe Minerals was considered to be the most likely course of action by several of these agencies. The Corps of Engineers (COE) referred the case to the Department of Justice (DOJ) in late 1978. To date, no action has been taken by the DOJ on this referral. In 1980, the recommendation from EPA/NEC called for immediate enforcement action under Section 111 of the CMA and Section 7005 of RCRA. The site was recommended for listing as an uncontrolled site by EPA, and the Department of the Interior for potential superfund action.

In late 1980, EPA began negotiating with Joe Minerals for voluntary clean-up of the mine tailings site. As a result of these negotiations, and the fact that mining was being excluded from the site, was a regulation (November 10, 1980), in Regional Office, the need for further action was eliminated. The death of the mine was announced by the Agency on January 1, 1981, as a result of the fact that the mine had been listed on the list of uncontrolled sites. Negotiations continued until 1980, until August 1980. It was understood that the principle question was to negotiate a settlement with the site.

1. elimination of Joe Minerals' past and future liability by the site, and

2. Assigning responsibility for future site maintenance

The final negotiated agreement, "Covenant Not to Sue" between the State of Massachusetts, St. Francois Puviconnautical Corporation, State Department of Natural Resources, State Clean Water Commission, State Conservation Commission, and State Attorney General's Office was signed on September 4, 1981.

## II The Agreement

The format of the Agreement, titled "Covenant Not to Sue" is in three basic parts. These parts can be described as:

1. Summary statements on the history of the site and washout incident,
2. Statements of liability, responsibility and exemption from future litigation, and
3. Description of remedial action work.

The first several provisions of the Covenant set forth the history of the site and washout incident as described previously in this memo.

The succeeding provisions set forth the conditions of liability, future litigation and remedial action responsibilities. According to the provisions, St. Joe Minerals and the St. Francis County Planning and Development Corporation are released from responsibility for all damage to the future, resulting from the washout incident. The St. Francis County Environmental Corporation assumes responsibility for cost action of agreed-upon remedial work and is responsible to the maintenance of the work. The St. Joe Minerals Corporation is to pay for the proposed work, provide elemental assistance for reconstructing, contact with, and advisory assistance to the St. Francis County Environmental Corporation with the review and inspection of all construction work performed. Responsibility for the work is assumed by St. Joe Minerals as a "advisory role."

*Feds would never agree to this. This is not binding on us.*

The third part of the Agreement provides specific details on the remedial action tasks. This work is described in a document titled, "Repair of Damage at Desloge Landfill Along Big River," and has been made part of the Covenant by reference.

The work can be briefly summarized as follows:

1. Fill-in/repair of all major erosion gaps (two large gaps and three smaller gaps),
2. Reconstruction of three retaining berms at the repaired erosion areas,
3. Alteration of the failed dike structure to prevent future blockage problems;
4. Seeding and fertilizer application to a 20 acre "demonstration" plot, and
5. Construction of all necessary haulage roads.

### III. Discussion

*What is this?*

Although the entire "Repair of Damage at Desloge Landfill" report and document was not submitted to the Agency or reviewed (drawings and photographs were omitted), the completion of work is consistent with the recommendations made in the 1980 report, prepared by the University of Missouri. It appears that the agreed-upon work is a "middle ground" response to the University of Missouri report recommendations. The structural failures on the site will be remedied by the proposed work and will still leave much of the environmental damage posed by future erosion or subsidence at the site. The University of Missouri performed extensive analyses on the engineering properties of the tailings material. With certain exceptions (i.e., areas where remedial work is planned) the report concluded that the tailing pile site "as a whole appears to be stable."

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don't use prison  
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which is contained in the City of New York (the City) is a landfill. The City  
conducted by the University of Illinois reported a landfill operation could lead to potentially serious contamination of water  
landfill operation could lead to potentially serious contamination of water  
supplies. Their laboratory studies, conducted with and without the presence of  
at least under field conditions lead and lead in the landfill. The landfill  
rate with the landfill and could eventually cause the landfill to  
groundwater should be. Their report viewed the hazardous waste landfill as a  
serious problem and stated an "Immediate Action" is required. In  
March 1990, following the University of Illinois report, the City of New York  
leachate monitoring at the site. Their results show that lead, cadmium,  
zinc and calcium are not elevated above background level or did not exceed  
the drinking water standards. Lead/LEGL has been analyzed, but the results  
analyzed by the City are representative of the Deane landfill leachate.  
that the question of landfill leachate mobilizing heavy metal, particularly  
lead, has not been resolved to the City's satisfaction. The City has  
determined if the landfill leachate mobilizes heavy metal, in particular lead.  
The Bureau of Sanitation is conducting a study on the landfill. The City  
contacted for background information and certification for the study.  
In the area. All results, appropriately placed in the landfill.  
install a landfill leachate analysis to include lead and other metals.

The landfill situation is due to the future site situation. Due to the monitoring of leachate impurities by MDNL should continue and appropriate actions taken if a problem develops. MDNR and the State Conservation Commission have been accorded the right of access for inspection purposes and the appropriate monitoring and inspection are necessary.

3. Site Stabilization for Erosion and Hazards of Abandoned Land East. The University of Maryland has concluded that the debris in the landfill will remain a potential air hazard due to blowing of dust and any other potential for further erosion until such time as the landfill is completely stabilized by vegetation. Because of problems with seed and erosion, moisture retention and fertility, erosion, revegetation of the site will not occur through natural processes. Although the Agreement provides for seed and fertilizer application to 20 acres of land, this seems to be restricted to the involve less than 1 percent of the landfill. The landfill is seeded with the seeded/landfilled plot may serve as a demonstration study to the plant supporting characteristics of the landfill plot at this study will provide the basis for future seeding and fertilization. If Agreement is not specific on who, if anyone, is responsible for the seeding, or evaluation the 20 acre demonstration plot.

Revegetation of 20 acres still leaves over 95 percent of the deslag site without plant cover. Questions have been raised as to whether the potential for windblown lead just at the abandoned landfill site represents a significant environmental hazard. In the absence of an air monitoring program it is difficult to accurately assess the hazard by this exposure route. A brief review of the available literature indicates that the environmental hazards associated with inhalation of lead and lead compounds during lead ore mining, crushing, and milling operations are not well understood. The World Development Bank "Criteria for Environmental Standards for Occupational Exposures to Inorganic Lead (1974)" provides a general overview of the effects of occupational exposure to lead to 341 mg/m<sup>3</sup> concentration. Lead mining is not mentioned in this overview. Therefore, the health effects of lead exposure may not be as simple as previously

The following criteria for lead (Pb) (68 CFR 17) are:

Lead ore for work is stored in lead mining deep to some extent on the solubility of the lead from the ore. The lead sulfide (PbS) is relatively insoluble, and absorption through the lungs may be slight. It is not really known how readily absorption takes place. In the stomach, however, some lead sulfide may be converted to slightly soluble lead chloride, which may then be absorbed in significant amounts.

Although occupational exposure to atmospheric lead is discussed in detail in this publication, no further reference to its potential health hazards is provided.

Lead toxicity is mainly the result of the concentration of soluble lead in soft tissues of the body. The insolubility of lead sulfide (galena) probably accounts for its low reported toxicity. The "Registry of the Toxic Effects of Chemical Substances" since lead sulfide presents an "insignificant hazard" with regard to aquatic toxicity. This is the lowest possible rating. The low toxicity rating also explains the lack of toxic reactions observed by EPA in the Fl. Fl. following the washout incident.

The Mine Safety and Health Administration (MSHA) is responsible for establishing and enforcing standards for occupational exposure to lead during mining operations. The standard is  $0.15 \text{ mg/m}^3$  of lead and lead compounds. Mr. Larry Phillips, Sub-district Manager of the MSHA, St. Louis, Missouri office states that compliance measurements for this standard are usually collected near the ore concentration operation. Although this operation produces a concentrate which is 90 - 95 percent lead sulfide, compliance with the  $0.15 \text{ mg/m}^3$  standard is not unusually difficult. Given that the lead tailings are 2 - 4 percent lead, Mr. Phillips did not believe that the abandoned tailing pile would violate their standard of  $0.15 \text{ mg/m}^3$ . Short-term violations may occur during periods of high winds but one could expect that due to the high density particulate nature of lead sulfide only the area immediately adjacent to and downwind from the site would be affected. Due to the low toxicity of lead sulfide, the low concentrations of lead in the tailing pile, and the intermittent nature of windblown dusts, it is concluded that the environmental hazards posed by windblown dusts are not significant. It may be advisable to establish monitoring stations near the site to confirm this conclusion.

#### A. Summary

The Agreement (Covenant not to Sue) between St. Louis Mineral Works, Inc. and interested parties is a reasonable negotiated settlement. It is up and running and a tailing pile washout incident for which no party is clearly responsible. The proposed remedial work will stabilize the site to prevent future washout problems but does not address other environmental concerns regarding

- 1 Tailings in the Big River sediment,
- 2 Potential leachate contamination from the landfill operation, and
- 3 The lack of a vegetative cover to further stabilize the site
- 4 Erosion control on a continuing basis
- 5 Long-term sampling/environmental evaluation program

Who put this in? Not appropriate nor correct statement

Overall the Agreement addresses landfill dam repairs but did not include the above listed concerns as applicable. The fact that lead concentrations in bottom feeding fish is high enough that the State issued a warning against their consumption is evidence to support a Federal action under §7063 of RCRA. For this reason and because the above listed concerns are not addressed in the Agreement, EPA should continue to monitor the progress of the State. It is recommended that we issue a letter to MDNR expressing our concerns and recommended actions they should undertake to address these.

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ency has unreasonably delayed in making [its] motion. The March 4 motion apparently should have been filed not later than 10 days after the Feb. 12 order under Rule 59(e) of the Federal Rules of Civil Procedure according to Judge Pratt who added: Here of course defendants waited some 20 days significantly muting their claim of hardship.

EPA asked the court March 4 to reconsider its Feb. 12 decision in which the court ordered the agency to promulgate within 90 days enforcement guidelines under the superfund law and a revised NCP outlining the federal government's response to chemical site and spill cleanups.

The court Feb. 12 ordered the agency to propose the NCP within 30 days and allow a 30 day public comment period. The plan must then be revised and republished within 90 days the court said.

The agency acting under the court's order March 12 proposed the revised NCP with guidelines for coordinating federal and state government responses to the cleanup of hazardous substance spills and abandoned hazardous waste dumpsites under the superfund law (Current Developments March 19 p. 1475 Full text p. 1498).

EPA's March 4 motion to reconsider that order asked the court to allow at least a 60 day public comment period on the proposed NCP and to permit the agency to provide the court with a report on the extent and nature of the public comments within 14 days of the completion of the comment period.

The agency cited the complexity and length of the NCP as its reason for requesting reconsideration of those portions of the court's Feb. 12 order relating to the plan. Until the public's comments on the proposed plan have been received EPA told the court it will be impossible to determine what period will be necessary to provide sufficient time for the government to consider respond to comments and then publish final revisions to the proposed plan. In any event the motion stated such response will likely be impossible to complete within thirty days.

The Environmental Defense Fund and later the state of New Jersey sued EPA last year for failing to issue the National Contingency Plan by June 9, 1981 as required under the superfund law (Sept. 11, 1981 p. 573). The plaintiffs sought a court order requiring the agency and the Office of Management and Budget to promulgate the plan for hazardous waste site and spill cleanup activities by February 1982.

Judge Pratt Feb. 12 granted the Environmental Defense Fund's motion for summary judgment saying that in view of the congressional intent ignored by EPA to issue the plan and the guidelines by June 9 a court ordered publication schedule was appropriate (Feb. 19 p. 1323).

The existing National Contingency Plan governs cleanups of oil and hazardous substance spills into navigable waters under the Clean Water Act but the superfund law requires that it be revised to apply to a wider range of hazardous substance releases into all environmental media.

### Litigation

#### COURT OF APPEALS REJECTS CHALLENGE TO EPA'S REGULATION OF MINING WASTE

The U.S. Court of Appeals for the District of Columbia Circuit March 16 ruled that the Environmental Protection Agency lawfully included mining waste in the category of solid waste regulated by agency criteria that define open dumping (Chemical Manufacturers Ass'n v. EPA No. 79-2299 et al.).

In 1979 EPA issued criteria defining solid waste disposal facilities and practices and classifying those practices that constitute open dumping under Sections 1008(a)(3) and 4004(a) of the Resource Conservation and Recovery Act of 1976 (Current Developments Sept. 21, 1979 p. 1183).

Issues relating to the agency's authority to regulate mining waste were raised by mining and other industry representatives in judicial challenge to the criteria.

Judge Malcolm R. Wilkey, writing for a three judge panel of the court, initially noted that Section 1004(27) of RCRA defines solid waste as including discarded material resulting from mining operations. He added that this definition is used in defining open dump as any facility or site where solid waste is disposed of that is not a sanitary landfill or a hazardous waste disposal site. Without question then Judge Wilkey continued the statutory language includes mining waste disposal within the scope of EPA's obligation to define the practice that constitute open dumping and to classify disposal sites as open dumps or sanitary landfills.

The court rejected the contention of Mining and Reclamation Council of America, Inc., a petitioner, that the agency lacks authority to regulate mining waste because RCRA's legislative history indicates that mining waste was exempted from the scope of Sections 1008(a)(3) and 4004(a). The court found that certain legislative history relied upon by the council is ambiguous and contradictory. The agency followed the language of RCRA and reasonably concluded that the Act empowers it to include mining waste in its classification of solid waste disposal sites, according to the court.

Turning to the mining and reclamation council's argument that provisions in the Surface Mining Control and Reclamation Act of 1977 and in RCRA that instruct EPA not to duplicate regulation provided by other agencies demonstrate that Congress intended the Surface Mining Control and Reclamation Act to operate as an exception to RCRA, the court observed that such an argument would amount to finding a repeal by implication. Nothing in SMCRA provides for repeal of EPA's authority over mining waste and SMCRA had no effect on RCRA's authorization.

Judge Wilkey also rejected the contention of the American Mining Congress, another petitioner in the litigation, that while RCRA gives the agency authority to regulate mining waste such authority may not be exercised until a mining waste study is completed under Section 8002(f) of the Act. Nothing in RCRA conditions exercise of regulatory power over mining waste on completion of the mining waste study. Nor is there any clear evidence that the study was meant solely or even predominantly for use in promulgating regulations under Sections 1008(a)(3) and 4004(a), the court said.

The court noted that Section 1008(a)(3) and Section 4004(a) criteria were due one year after RCRA was enacted and that Section 4005(b) required publication of an inventory of open dumps one year after that. The Section 8002(f) study also was supposed to be completed in two years according to the court. It is difficult to argue, therefore, that Congress intended the study to precede regulation of mining waste under Sections 1008(a)(3) and 4004(a), Judge Wilkey said.

[W]e refuse to add or subtract language from RCRA simply to conform to certain vague portions of the legislative history, the court concluded.

Turning to the American Mining Congress argument that EPA acted arbitrarily and capriciously in applying its criteria to mining waste, Judge Wilkey observed that EPA quite reasonably followed the statutory definition of solid waste when it included mining waste under the criteria.



If subsequent studies suggest that LPA should alter its criteria with regard to mining waste then the petitioners may request the agency to do so the court noted

### General Policy

#### LAVELLE NOMINEE TO RUN EPA PROGRAMS FOR RCRA SUPERFUND REVIEWED BY COMMITTEE

Rita M. Lavelle March 23 told a Senate committee reviewing her nomination as Environmental Protection Agency assistant administrator for solid waste and emergency response that she will work towards involving the private sector and state governments in the superfund and hazardous waste programs in order to get outstanding results in protecting human health safety and the environment.

Lavelle's nomination however was opposed by environmental groups which criticized her association with Aerojet General Corp. a firm that has one of the worst waste dumpsites in the United States (Current Developments Feb 26 p 1360).

Committee members predicted smooth sailing for Lavelle's nomination in the Senate although they promised to scrutinize her performance as assistant administrator in charge of the superfund chemical spill and dumpsite cleanup program under the Environmental Response Compensation and Liability Act of 1980 and the hazardous waste management program under the Resource Conservation and Recovery Act. If confirmed by the committee and the Senate Lavelle would be one of the seven assistant administrators at EPA.

Committee Chairman Robert T. Stafford (R-Vt) Sen Jennings Randolph (D-WVa) ranking minority member and Sen John H. Chafee (R-RI) opened the hearing by emphasizing the importance of managing well EPA's hazardous waste and superfund programs created under laws developed in the Environment Committee. Stafford noted that the assistant administrator position created under the superfund law has remained vacant for 15 months no doubt accounting for many difficulties encountered presently in both programs. Difficulties he said include

- ▶ Much too slow implementation of RCRA and the superfund law
- ▶ Slow enforcement of the two laws
- ▶ Overemphasis of response activities on abandoned hazardous waste sites to the exclusion of releases and
- ▶ Allocation of inadequate resources to the Departments of Justice and of Health and Human Resources to carry out their responsibilities under the laws

Chafee expressed concern that six years after RCRA's enactment the hazardous waste regulations are incomplete and probably will not be made final until the end of 1983 and that no new waste disposal sites have been established despite enactment of waste siting legislation in 22 states.

Chafee said he was also concerned about the slow progress in carrying out the two year old superfund law the slow movement of money to states to clean up and respond to releases the lack of final decisions on critical enforcement policies and superfund health studies that are still up in the air.

All three senators urged Lavelle to make both programs receive the highest policy level attention within EPA.

#### Lavelle's Statement

Lavelle said that as assistant administrator she would be on the lookout for economies at all levels inside government and with the contractors working for EPA — getting the

most for every environmental protection dollar is an application of Reaganomics which I intend to help Administrator [Anne M.] Gorsuch implement.

She endorsed a federal role in developing guidelines for states to design solid waste management programs adding that over half the states have developed plans that 14 of these have received approval and that the process is expected to be completed by the end of 1983.

Her thrust for the hazardous waste program should she be confirmed would be to work with private enterprise and state governments to develop environmentally safe disposal procedures that are effective and feasible she told the committee.

The EPA nominee noted that 28 states have Phase I authorization of their hazardous waste programs and seven more states are expected to assume management roles this year (See related story p 1546) nothing that most of these states are in the Midwest Southwest and Southeast where more than half of the disposal facilities are located.

As assistant administrator Lavelle said she would ensure that the hazardous waste regulations for land disposal incinerators storage and financial liability will be promulgated and more importantly will work.

The agency is in its second year of operating the superfund program but in first year with full funding Lavelle said and is concentrating on field work at as many sites as possible to develop appropriate cleanup remedies.

Lavelle said she would press for negotiating cooperative agreements with even more states and for voluntary cleanup of sites and spills by the private sector. An increasing number of private companies are responding to emergency requirements for the immediate and planned removal of hazardous waste. Lavelle noted adding that she hopes the voluntary efforts will be extended to the remedial action area.

While Lavelle said she prefers the carrot to the stick approach the stakes are too high to hide the stick or fail to use it when justified in enforcing the hazardous waste regulations and the superfund law. Midnight dumpers gypsy haulers and other flagrant bad actors will be prosecuted she assured the committee.

Senator Daniel Patrick Moynihan (D-NY) told Lavelle to respond to uncontrolled hazardous waste sites and spills first and argue who will pay for the remedial costs later.

When there's a question I hope you respond on the side of acting he said.

Because cleanup technologies for waste sites are very new Lavelle said EPA must ensure that the technological community is given the maximum amount of encouragement to develop answers calling for a cross fertilization of talents.

Moynihan called Lavelle's nomination welcome but tardy in expressing concern that the Reagan Administration does not like the superfund program and is spending money where it doesn't want to.

Lavelle said the success of the superfund program should not be measured by the amount of money spent (March 19 p 1490) but rather by the number of actual cleanups completed at dumpsites. Regarding recent statements made by congressmen that EPA is not spending superfund program appropriations in order to balance the federal budget Lavelle said the superfund program is 10 to the minus seventh when you consider the national deficit.

She told reporters that program expenditures were slow the first and second quarters of fiscal 1982 because the agency had to get the program management system on line.

Date

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## REMARKS

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*Let's discuss this when  
you return - Bob T  
attached*

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